IN THE CLAIMS

1. (Original) A method for purifying air for fuel cells, wherein the starting air is passed through an adsorber with an adsorbent of carbon dioxide, then the adsorbent is regenerated by heating, characterized in that an adsorbent is used in the adsorber, the adsorbent comprising hydrated oxides of transition metals which are regenerated at a temperature of 60-120°C by the air spent in a fuel cell.

2. (Original) The method for purifying air for fuel cells according to claim 1, characterized in that air fed for regeneration is heated until a relative humidity of from 15 to 85°% is achieved.

3. (Original) A device for purifying air for fuel cells, comprising an air flow blower connected by means of pipelines and a stop valve to adsorbers provided with an adsorbent of carbon dioxide and connected to an air inlet of a fuel cell, characterized in that the stop valve is made in the form of switches that provide for the sequential connection of the inlet and outlet of one of the adsorbers to the air flow blower and to the air inlet of the fuel cell respectively, and the outlet of the other adsorber through a heater to the air outlet of the fuel cell.

4. (Currently Amended) A device for purifying air for fuel cells, comprising an air flow blower, connected by means of pipelines to adsorbers provided with an adsorbent of carbon dioxide and connected to an air inlet of a fuel cell, characterized in that the adsorbers, separated one from another by partitions, are positioned ~~inone~~ in one housing with the

possibility of rotating about a longitudinal axis and sequentially connecting at an inlet to the air flow blower and at an outlet through a heater to an air outlet of the fuel cell.

5. (Previously Presented) The device for purifying air for fuel cells according to claim 3, characterized in that the adsorbers are provided with an adsorbent containing hydrated oxides of zirconium.

6. (Previously Presented) The device for purifying air for fuel cells according to claim 3, characterized in that thermal insulation is arranged inside the adsorbers and heaters.

7. (Previously Presented) The device for purifying air for fuel cells according to claim 4, characterized in that the adsorbers are provided with an adsorbent containing hydrated oxides of zirconium.

8. (Previously Presented) The device for purifying air for fuel cells according to claim 4, characterized in that thermal insulation is arranged inside the adsorbers and heaters.

9. (Previously Presented) A method for purifying air for a fuel cell comprising the steps of:

(a) passing air through adsorbents that absorb carbon dioxide to purify the air of carbon dioxide, said adsorbents comprising a hydrated oxide of a transition metal;

(b) passing the air from step (a) to the fuel cell for functioning of the fuel cell;

(c) heating air spent in the fuel cell to a temperature of 60-120°C; and

(d) regenerating the adsorbents with the heated air.

10. (Previously Presented) The method according to claim 9, wherein the heated air for regenerating the adsorbent has a relative humidity of from 15 to 85%.

11. (Previously Presented) The method according to claim 9, wherein the adsorbents are contained in at least first and second adsorbers and the method comprises a first cycle in which air is passed in step (a) through the adsorbents in the first adsorber with the air heated in step (c) being used to regenerate the adsorbents in the second adsorber, and a second cycle in which air is passed in step (a) through the adsorbents in the second adsorber with the air heated in step (c) being used to regenerate the adsorbents in the first adsorber.

12-21. (Cancelled)

22. (Currently Amended) A device for purifying air for a fuel cell, comprising:

(a) a blower for creating a flow of air;

(b) a plurality of adsorbers, including at least first and second adsorbers each of which comprises an inlet and an outlet, each of said first and second adsorbers comprising an adsorbent of carbon dioxide;

(c) a fuel cell comprising an inlet and an outlet;

(d) at least a first heater;

(e) a plurality of pipelines connecting components (a), (b), (c) and (d) such that (i) air flowing from the blower can pass through the adsorbents in at least the first adsorber to

purify the air of carbon dioxide, (ii) the purified air can pass through the fuel cell for functioning thereof, (iii) air spent in the fuel cell can pass through the heater for heating the air and (iv) the heated air can pass through the adsorbents in at least the second adsorber to regenerate them, wherein the adsorbents comprise a hydrated oxide of a transition metal which is regenerable at a temperature of 60-120°C by air spent in the fuel cell.

23. (Currently Amended) The device according to claim 22 ~~claim 11~~, wherein the pipelines comprise switch means for selectively allowing air flowing from the blower to pass sequentially either (a) through the first adsorber, the fuel cell, the at least first heater and then through the second adsorber, or (b) through the second adsorber, the fuel cell, the at least first heater and then through the first adsorber, whereby the adsorbents in the first adsorber can be used to purify air of carbon dioxide while the adsorbents in the second adsorber are being regenerated or vice versa.

24. (Previously Presented) The device according to claim 23, comprising a plurality of heaters, the pipelines connecting the components such that spent air passing from the fuel cell to the second adsorber passes through the first heater while spent air passing from the fuel cell to the first adsorber passes through a second heater.

25. (Previously Presented) The device according to claim 22, wherein the first and second adsorbers are contained in a single housing and are separated from one another by a partition, said first and second adsorbers being rotatable around a longitudinal axis such that, upon rotation of the adsorbers, the blower can be connected to the inlet of the second adsorber and the at least first heater can be connected to the outlet of the first adsorber.

26. (Previously Presented) The device according to claim 22, wherein the adsorbents comprise a hydrate oxide of zirconium.

27. (Previously Presented) The device according to claim 23, wherein the adsorbents comprise a hydrate oxide of zirconium.

28. (Previously Presented) The device according to claim 24, wherein the adsorbents comprise a hydrate oxide of zirconium.

29. (Previously Presented) The device according to claim 25, wherein the adsorbents comprise a hydrate oxide of zirconium.

30. (Previously Presented) The device according to claim 22, wherein the adsorbers and the at least first heater comprise thermal insulation.

31. (Previously Presented) The device according to claim 23, wherein the adsorbers and the at least first heater comprise thermal insulation.

32. (Previously Presented) The method according to claim 1, wherein the adsorber comprises a container the contains the absorbent and the hydrated oxides of the transition metals are regenerated without replacement of the container.

33. (Previously Presented) The method according to claim 9, wherein the absorbents comprise hydrated oxides of transition metals that are contained in at least a first container and the hydrated oxides of the transition metals are regenerated without replacement of the container.